

## WAC 197-11-960 Environmental checklist.

### ENVIRONMENTAL CHECKLIST

#### *Purpose of checklist:*

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

#### *Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

#### *Use of checklist for nonproject proposals:*

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

#### A. BACKGROUND

1. Name of proposed project, if applicable:

*Water Crossing Design Guidelines, non-project. The Water Crossing Design Guidelines (WCDG) are available on the WDFW SEPA website [http://wdfw.wa.gov/licensing/sepa/sepa\\_comment\\_docs.html](http://wdfw.wa.gov/licensing/sepa/sepa_comment_docs.html)*

2. Name of applicant:

*Bob Barnard, WDFW*

3. Address and phone number of applicant and contact person:

*PO Box 111, LaConner, WA. 360-466-4345 ext 255*

4. Date checklist prepared:

*1/2/2013*

5. Agency requesting checklist:

*WASHINGTON DEPARTMENT OF FISH AND WILDLIFE*

6. Proposed timing or schedule (including phasing, if applicable):

*Document published Jan. 2013*

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

*The Water Crossing Design Guidelines (WCDG) is a completed document that is unlikely to undergo further edits after the SEPA review process and before publication.*

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

*Environmental observations and models are used to help applicants properly design water crossings. Many instances occur in the 300 page document.*

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

*None*

10. List any government approvals or permits that will be needed for your proposal, if known.

*None, these are guidelines that will be published by the Aquatic Habitat Guidelines program and approval or support has been*

granted by the participating organizations.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

*This is a non-project proposal. State law requires fish passage and the protection of fishlife (RCW 77.57.030 and WAC 220-110-070, among others). The Water Crossing Design Guidelines were written to help the crossing owner and designer comply with these laws. They are recommendations on the design of water crossings for fish passage and habitat protection to avoid or minimize impacts to fishlife. The Guidelines were written by the Dept of Fish and Wildlife, and others, and will be published through the Aquatic Habitat Guidelines program.*

*Water crossings are structures that allow roads to cross over rivers and streams, usually by means of bridges or culverts. This includes all roads from Interstate and State Highways, county and municipal roads, forest and farm roads, and vehicle access and driveways on public and private lands. Inappropriately designed bridges and culverts can prevent fish passage and deleteriously impact fish habitat, exacerbate flooding and cause streambank erosion. They can interfere with movement of water, stream sediments and wood in normal stream processes. In a successful suit filed by Washington Treaty Tribes against the State of Washington, inappropriately designed culverts were found to impact fishery resources and the State is required to replace barrier culverts using design recommendations like those found in these guidelines.*

*To improve the design and construction of water crossings, the Washington Department of Fish and Wildlife (WDFW) has revised the Water Crossing Design Guidelines to help the owner and designer understand fish passage and habitat protection in crossing design. With the publication of these guidelines we would hope that when a water crossing is replaced it would be replaced with a structure providing fish passage and include provisions to avoid or minimize impacts to habitat.*

*It should be understood that the guidelines themselves do not require action, such as the construction of a new or replacement crossing. They simply make recommendations for appropriate design of those crossings as required by State law for fish passage and habitat protection. These guidelines do not address the civil structures (the design and construction of the road fill, travel surface, culvert material, and bridge components, and the construction process involving the transport and placement of these materials), which is covered under state and local construction codes and zoning laws, as well as bridge and road design standards at all levels of government. In a given situation, the crossing owner might have to obtain permits from Federal, state and local jurisdictions in addition to the Hydraulic Project Approval (HPA) from WDFW.*

*When an owner constructs a new or replacement crossing they may cause potential adverse impacts in a number of areas, such as; the disposal of fill material or construction debris; construction activity and truck traffic and any associated impacts on traffic, noise, or air quality during construction; the removal of a potentially valuable cultural structure (such as an old bridge); the removal of riparian vegetation; temporary or permanent impacts to the bed or banks of the stream. Some of these impacts are covered under the HPA and they are required to mitigate them. Others are not covered by the HPA but are within the jurisdiction of other state or local jurisdictions.*

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

*The guidelines apply to all waters of the State of Washington.*

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . .

*Water crossing projects can occur in any of these site conditions but this is a non-project application for a guidance document.*

*There are no specific project characteristics. The document does advise the designer to use caution in difficult site conditions.*

- b. What is the steepest slope on the site (approximate percent slope)?

*Water crossing projects can occur in any of these site conditions but this is a non-project application for a guidance document. There are no specific project characteristics. The document does advise the designer to use caution in difficult site conditions.*

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

*Water crossing projects can occur in any of these site conditions but this is a non-project application for a guidance document.*

*There are no specific project characteristics. The document does advise the designer to use caution in difficult site conditions.*

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

*Water crossing projects can occur in any of these site conditions but this is a non-project application for a guidance document. There are no specific project characteristics. The document does advise the designer to use caution in difficult site conditions.*

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

*This is a non-project application for a guidance document. There are no specific project characteristics.*

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

*The document does advise the designer to minimize erosion and to use environmentally responsible methods to do so.*

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

*This is a non-project application for a guidance document. There are no specific project characteristics.*

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

*Impacts would be minimized by permit conditions on timing, revegetation and BMPs to control erosion.*

### a. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

*Dust and diesel engine discharges would occur in crossing construction. These would be one-time and of short duration and would be covered by Federal and state air quality regulations.*

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

*This is a non-project application for a guidance document. There are no specific project characteristics.*

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

*This is a non-project application for a guidance document. There are no specific project characteristics.*

### 3. Water

#### a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

*Yes, all water crossings in Washington.*

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

*Yes, plans may be developed, in part, on the basis of the recommendations in these guidelines.*

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

*The implementation of these guidelines would result in fill materials being removed from stream channels in many cases.*

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

*No permanent diversions. Temporary bypass, yes, during Construction.*

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

*Many large water crossings will affect floodplain, although these guidelines seek to minimize and reduce existing impacts.*

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

*Construction practices often do result in discharges of fine sediment into surface waters. These guidelines seek to minimize them.*

#### b. Ground:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

*Ground water is rarely withdrawn as part of a stream crossing project.*

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

*Construction activities such as those associated with new and replacement crossings may generate some waste and spillage. These activities are not covered by the Guidelines since they concern the protection of fishlife, and are generally under the purview of other state and local jurisdictions.*

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

*There is runoff from roads that often enters streams at stream crossings.*

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

*This is possible but not really the focus of these guidelines. There is potential but conditions placed upon the owner by the various permits required for construction would minimize these impacts.*

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

*While outside our jurisdiction, there is a chapter with recommendations for runoff in the guidelines.*

#### 4. Plants

a. Check or circle types of vegetation found on the site:

☒ deciduous tree: alder, maple, aspen, other

☒ evergreen tree: fir, cedar, pine, other

☒ shrubs

☒ grass

☒ pasture

☒ crop or grain

☒ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

☒ water plants: water lily, eelgrass, milfoil, other

☒ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

*Vegetation is affected in the building and maintenance of water crossings. Some riparian vegetation would be removed in bridge and culvert installation. Disturbed soils would be revegetated.*

c. List threatened or endangered species known to be on or near the site.

*There are numerous threatened and endangered species of fish in Washington streams. These guidelines seek to avoid or minimize impacts to them. The intent of the guidelines is to correct fish passage barriers where they exist and to design new ones that comply with Washington fish passage standards.*

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

*We recommend measures and mitigation for minimizing these affects.*

#### 5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other:

*Most of these species are found near water crossings.*

b. List any threatened or endangered species known to be on or near the site.

*There are a variety of listed salmon and trout species in State waters. These guidelines are written to equal or exceed NOAA NMFS 2011 Anadromous Salmonid Passage Facility Design.*

c. Is the site part of a migration route? If so, explain.

*Yes, and the continuity of these routes is the very nature of these guidelines. Modern crossing design methods described in these guidelines seek to provide fish passage through ecological connectivity, insuring the passage of most aquatic species.*

d. Proposed measures to preserve or enhance wildlife, if any:

*The guidelines themselves are written to minimize impacts fish. Non-fish wildlife are not really part of State law concerning hydraulic projects, although several of the design methods that address ecological connectivity which means free movement of organisms up and downstream, as well as the transport of sediment and debris. There are riparian-associated wildlife species whose migrations are benefited by wider bridges and full spanning structures.*

## **6. Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

*Once the crossing project is completed, there are generally no energy needs.*

b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.

*Crossing projects are not likely to affect adjacent properties in this way.*

c. What kinds of energy conservation features are included in the plans of this proposal?

List other proposed measures to reduce or control energy impacts, if any:

*Crossing projects can require a large amount of fuel to excavate and transport vast quantities of soil and other construction materials. Unfortunately, there is no way to avoid this and still achieve the environmental goals set for these projects.*

## **7. Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe.

*During the construction of a crossing project there may be fuels or other materials that pose a risk to people or wildlife. These activities are not covered by this document since it concerns the protection of fishlife and are usually under the jurisdiction of other state or local agencies.*

1) Describe special emergency services that might be required.

*Many water crossing structures need to have sufficient load capacity and width to provide emergency vehicle access during emergencies. This is determined on a case by case by the agencies who have jurisdiction.*

2) Proposed measures to reduce or control environmental health hazards, if any:

*These hazards are not covered by this document since it concerns the protection of fishlife and are usually under the jurisdiction of other state or local agencies.*

## **b. Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

*Construction activity and roads themselves are noisy, although the planning and design of roadways and their impacts are not part of these guidelines since they concern the protection of fishlife.*

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

*Does not apply since noise is covered by other laws and regulations. There would be short term construction noise impacts when projects are constructed.*

- 3) Proposed measures to reduce or control noise impacts, if any:

*There are no measures to control noise in this document since it concerns the protection of fishlife.*

## **8. Land and shoreline use**

- a. What is the current use of the site and adjacent properties?

*All land uses.*

- b. Has the site been used for agriculture? If so, describe.

*These guidelines apply to agricultural lands. They are not expected to impact normal farming activities.*

- c. Describe any structures on the site.

*Those associated with water crossings: bridges, culverts, utilities, guardrails, signage, etc.*

- d. Will any structures be demolished? If so, what?

*Water crossings that will be replaced.*

- e. What is the current zoning classification of the site?

*All zoning*

- f. What is the current comprehensive plan designation of the site?

*All designations*

- g. If applicable, what is the current shoreline master program designation of the site?

*All designations*

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

*Many areas would be considered sensitive. Streams and Rivers and riparian areas are environmentally sensitive*

- i. Approximately how many people would reside or work in the completed project?

*This is a non-project application and contains no specific site details.*

- j. Approximately how many people would the completed project displace?

*Does not apply since local zoning laws cover long term affects on the population. There are water crossing replacements cases where access to properties would be prevented for short periods of time until project is completed or alternate access provided.*

- k. Proposed measures to avoid or reduce displacement impacts, if any:

*App. H discusses impacts and compensation.*

Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

*This is a non-project application and contains no specific site details.*

#### **9. Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

*This is a non-project application and contains no specific site details.*

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

*This is a non-project application and contains no specific site details.*

c. Proposed measures to reduce or control housing impacts, if any:

*This is a non-project application and contains no specific site details.*

#### **10. Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

*This is a non-project application concerning road crossings and contains no specific site details.*

b. What views in the immediate vicinity would be altered or obstructed?

*This is a non-project application concerning road crossings and contains no specific site details.*

c. Proposed measures to reduce or control aesthetic impacts, if any:

*This is a non-project application concerning road crossings and contains no specific site details.*

#### **11. Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

*Does not apply. There would be some increase in road light and glare but that would be associated with vehicle traffic on the road and not the crossing itself.*

b. Could light or glare from the finished project be a safety hazard or interfere with views?

*Does not apply. There would be some increase in road light and glare but that would be associated with vehicle traffic on the road and not the crossing itself.*

c. What existing off-site sources of light or glare may affect your proposal?

*Does not apply. There would be some increase in road light and glare but that would be associated with vehicle traffic on the road and not the crossing itself.*

d. Proposed measures to reduce or control light and glare impacts, if any:

*Does not apply. There would be some increase in road light and glare but that would be associated with vehicle traffic on the road and not the crossing itself.*



## 12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

*Many recreational activities such as fishing and boating occur on State waters.*

- b. Would the proposed project displace any existing recreational uses? If so, describe.

*Generally, they are not affected by water crossings. Any displaced recreation would be short term.*

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

*None.*

## 13. Historic and cultural preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

*Occasionally a bridge may be considered historic. Larger replacement structures could remove some additional existing road fill materials and need staging sites for storing construction materials. Road prism is where most work would occur and these are already disturbed soils with reduced potential for archeological or cultural resources, still evaluation and review by Tribes and DHAP would need to be done before construction.*

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

*This is a non-project application concerning road crossings and contains no specific site details.*

- c. Proposed measures to reduce or control impacts, if any:

*These guidelines cover the design of water crossing for fish passage and habitat protection. The cultural and historic process is the responsibility of each owner.*

## 14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

*All roads.*

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

*This is a non-project application concerning road crossings and contains no specific site details.*

- c. How many parking spaces would the completed project have? How many would the project eliminate?

*This is a non-project application concerning road crossings and contains no specific site details.*

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

*This is a non-project application concerning road crossings and contains no specific site details.*

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

*Crossing design includes railroad crossings. Bridges often occur over navigable waters. The Guidelines concern the protection of fishlife and so do not cover the effects on these services, other agencies do.*

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

*This is a non-project application concerning road crossings and contains no specific site details.*

- g. Proposed measures to reduce or control transportation impacts, if any:

*The Guidelines concern the protection of fishlife and so do not cover the effects on these services, other agencies do.*

#### 15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

*New and replacement water crossings may increase the need for public services by increasing access. The Guidelines concern the protection of fishlife and so do not cover the effects on these services, other agencies do.*

- b. Proposed measures to reduce or control direct impacts on public services, if any.

*The Guidelines concern the protection of fishlife and so do not cover the effects on these services, other agencies do.*

#### 16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

*This is a non-project application concerning road crossings and contains no specific site details.*

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

*This is a non-project application concerning road crossings and contains no specific site details.*

#### C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.



Signature:

Environmental Engineer, WDFW

Date Submitted: 1/2/13

#### D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

*The Water Crossing Design Guidelines (WCDG) are about the design of culverts and bridges for fish passage. Generally, they discuss the design of these structures only so far as fish passage and habitat protection are concerned. In some cases there will be an increase in instantaneous stream discharge by increasing the span or capacity of a crossing, but the presence or absence of toxic or hazardous substances in the water will not be changed. The design of the civil structure (e.g. the bridge footings, or culvert material) are not addressed, and any discharge of toxic or hazardous substances that are used in the construction are the responsibility of the owner. Some construction activities may increase the level of fine sediment in the water for brief periods.*

Proposed measures to avoid or reduce such increases are:

*Increased turbidity during construction is minimized by isolating the work area and treating muddy water during construction. These methods are discussed in Chapter 13.*

*Although it is outside our jurisdiction, we do discuss treating road runoff in Chapter 11 because stormwater is often released into the stream at road crossings since they are usually in dips where ditches drain to. This chapter was written in consultation with Dept. of Ecology.*

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

*All of these biota are likely to benefit from the proper design of crossings. The goal of crossing design today is ecological connectivity, which allows the free movement of materials and organisms up and downstream.*

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

*None needed. In permits for the sites, work would be timed to avoid fish migrations and rainy periods to protect fish life and reduce impacts of erosion on disturbed soils. Disturbed sites would be revegetated.*

3. How would the proposal be likely to deplete energy or natural resources?

*The energy and natural resources required to fulfill the owner's obligation are not the responsibility of these guidelines.*

Proposed measures to protect or conserve energy and natural resources are:

*None needed.*

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

*The location of the road and the crossing are the responsibility of the owner. These guidelines seek to minimize the impacts on these sensitive areas through proper design and mitigation when necessary. Restoring fish passage in some systems could allow competitive non-native species to access listed species habitat. This could occur in streams with downstream populations of eastern brook trout and species such as bull trout or red band rainbow above the barrier.*

Proposed measures to protect such resources or to avoid or reduce impacts are:

*None needed. WDFW's position has been to repair the fish passage barriers and control competition from non natives species through screens and other targeted control measures.*

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

*The WCDG encourage land use planning that minimizes the impacts of roads and crossing, Chapter 9. The effects of roads on land use is really the responsibility of local jurisdictions and private land owners.*

Proposed measures to avoid or reduce shoreline and land use impacts are:

*These guidelines encourage environmentally responsible choices in the siting, technique selection, design and construction of water crossings.*

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

*The WCDG address the design of crossings that are owned, built and maintained by others. The use and planning for those roads may be influenced by these guidelines, but ultimately, the owners make decisions depending on their own transportation needs.*

Proposed measures to reduce or respond to such demand(s) are:

*None required.*

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

*These guidelines support such laws and requirements. There are many similarities and general agreement between the WCDG and NOAA Fisheries Anadromous Salmonid Passage Facility Design, and USACE Nationwide Permit conditions. Generally, other State agencies and local governments follow the example WDFW sets for fish passage design.*